



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604**

**DATE:** SEP 20 2017  
**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT  
Joint American Bottoms and Sauget Treatment Facility, Sauget, IL  
**FROM:** Sarah Clark, Environmental Engineer  
AECAB (IL/IN)  
**THRU:** Nathan Frank, Section Chief  
AECAB (IL/IN)  
**TO:** File

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**BASIC INFORMATION**

**Facility Name:** Joint American Bottoms and Sauget Treatment Facility (American Bottoms)

**Facility Location:** #1 American Bottoms Road, Sauget, Illinois 62201

**Date of Inspection:** July 26, 2017

**EPA Inspectors:**

1. Sarah Clark, Environmental Engineer
2. Victoria Nelson, Environmental Engineer
3. Kenneth Ruffatto, Environmental Engineer

**Other Attendees**

1. Sandy Bernard, Process Engineer, American Bottoms
2. Kelly Smith, PE., Operations Manager, American Bottoms
3. Kay Anderson, Regulatory Affairs and New Business Manager, American Bottoms

**Purpose of Inspection:** Assess the facility's compliance with the Clean Air Act.

**Facility Type:** Wastewater Treatment

**Regulations Central to Inspection:** Title V renewal permit issued April 7, 2016, Illinois State Implementation Plan

**Arrival Time:** 1:23 PM

**Departure Time:** 4:30 PM

**Inspection Type:**

- ☒ Unannounced Inspection
- ☐ Announced Inspection

**OPENING CONFERENCE**

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from American Bottoms staff unless otherwise noted.

**Process Description:**

The site is owned by the Village of Sauget and consists of two plants: the Village of Sauget Physical/Chemical Treatment Plant (PChem) and the American Bottoms Regional Wastewater Treatment Facility (ABRWTF). The PChem plant receives primarily industrial waste from local facilities via trucks (i.e. hauled wastewater) or pipeline. The wastewater passes through a splitter box to one of two influent bays: the South bay is used most often while the North bay is typically reserved for storm water overflow. The settling that occurs in the bays serve as a form of grit removal. On the way to the formal grit chambers, employees manually skim oil from the water's surface. Then the influent passes through a continuous, three-stage neutralization process in which quick lime is stirred into the wastewater to successively raise the pH from ~ 1-5 pH to about 7.0-7.3 pH. Dry pebble lime is delivered by truck and blown into one of two 25-foot, 178 ton silos that are controlled by a dedicated baghouse located at the top of each silo. The lime is mixed into a slurry prior to adding it to the water. From there, the neutralized wastewater is sent to the primary clarifiers where further settling occurs; a belt filter press collects the sludge which is then sent to the Milam Landfill in East St. Louis. In addition to treating the effluent from PChem that is gravity fed to ABRWTF, the ABRWTF plant provides biological treatment for wastewater discharges from primarily domestic sources in East St. Louis and Cahokia, Illinois. Treated effluent is discharged into the Mississippi River.

**Staff Interview:**

The plant uses two air monitors to monitor hydrogen sulfide and oxygen concentrations. The facility has occasionally accepted landfill leachate. The PChem process uses no additional flocculent. PChem uses approximately 400-450 tons of lime per month, and sometimes ABRWTF uses additional lime. K. Anderson calculates the emissions for the entire site using Toxchem software. In December and January, PChem received unusually high amounts of 4-methyl-2-pentanone, also known as methyl isobutyl ketone, from their client, Solutia.

**TOUR INFORMATION**

**EPA toured the facility:** Yes

**Data Collected and Observations:**

During the inspection, EPA inspectors toured the PChem operations. At the North and South Bays, EPA noted slight odors. At the clarifiers, EPA inspectors observed white foamy material blowing off and into the area adjacent to the facility. Facility staff stated that the material was a result of suds formation from an oil surfactant in the effluent.

**Photos and/or Videos:** were not taken during the inspection.

**Field Measurements:** were not taken during this inspection.

**CLOSING CONFERENCE****Requested documents:**

- Air Emissions Summary 2017

**SIGNATURES**

Report Author: Sam Clark Date: 8/31/2017

Section Chief: Nate A Date: 9/20/17